

CITY OF FRIDLEY

2017 DRINKING WATER REPORT



PRESENTED BY YOUR PUBLIC WORKS DEPARTMENT

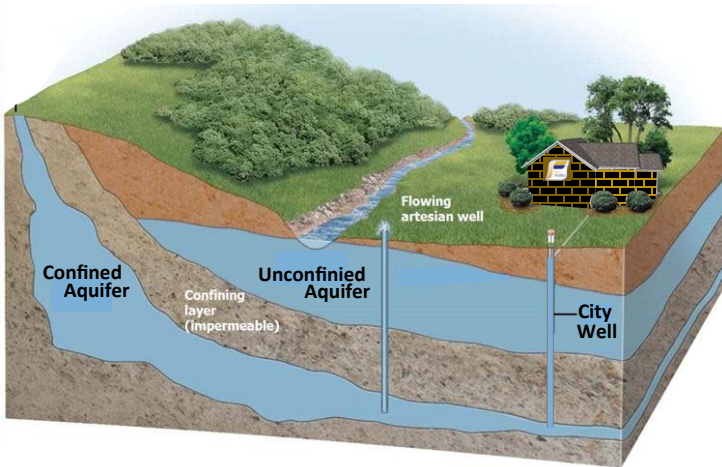


Keeping You Informed

Fridley drinking water continues to meet all State and Federal standards. The City of Fridley is issuing the results of monitoring done on its drinking water for the period from January 1 to December 31, 2017. *The purpose of this report is to provide you with information on your drinking water and how to protect our precious water resources.*

Making Clean Drinking Water

Your drinking water comes from a groundwater source: eleven wells ranging from 199 to 870 feet deep, that draw water from the Prairie Du Chien-Jordan, Prairie Du Chien Group, Mt. Simon, Quaternary Buried Artesian, Jordan-Mt.Simon and Jordan aquifers.



Fridley works hard to provide you with clean and reliable drinking water that meets federal and state water quality requirements.

The U.S. Environmental Protection Agency sets safe drinking water standards. These standards limit the amounts of specific contaminants allowed in drinking water. This ensures that tap water is safe to drink for most people. The U.S. Food and Drug Administration regulates the amount of certain contaminants in bottled water. Bottled water must provide the same public health protection as public tap water.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

Translations

This report contains important information about your drinking water. Have someone translate it for you, or speak with someone who understands it.

Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien.

Daim ntawv teev num no muaj cov ntaub ntawv tseem ceeb hais txog koj cov dej haus. Nrhaiv ib tug neeg pab txhais cov ntaub ntawv no rau koj, lossis tham nrog ib tug neeg uas paub cov lus no.

Warbixintan waxay wadataa macluumaad muhiim ah ee la xiriira biyaha aad cabtid. Cid ha kuu tarjunto ama la hadl cid fahmaysa.

Tài liệu này có tin tức quan trọng về nước uống của quý vị. Hãy nhờ người dịch cho quý vị, hoặc hỏi người nào hiểu tài liệu này.

هذا التقرير يحتوي على معلومات مهمة عن ماء الشرب الذي تستخدمه. اطلب من شخص ما ان يترجمه لك لو يستطيع فهمه.

Questions, Concerns or Want to Get Involved?

Call (763) 572-3554 if you have questions about the City of Fridley drinking water or would like information about opportunities for public participation in decisions that may affect the quality of your drinking water.

Clean Drinking Water

< \$0.006 /Gallon

City of Fridley
Friendly. Responsive. Driven.
Tel. (763) 572-3554

Above: Cost Per Gallon For Base Tier, 2018 Residential Rate



Working for YOU!

The Fridley Water Division maintains the operation of 13 wells, 4 reservoirs and 3 filtration plants. In 2017, we repaired and upgraded water mains in some of the oldest areas of the community including the North Park neighborhood.

The City also repaired a 50-year old watermain under I-694. The project successfully rehabilitated 435 lineal feet of 12-inch watermain beneath I-694 using the no-dig method of installing a structural cured-in-place pipe liner (CIPP). This is one of the three remaining I-694 crossings we plan to proactively rehabilitate before emergency repair is necessary.

Public Works staff successfully completed the accelerated residential meter replacement program. We are also entering the design phase for a major renovation at the Locke Park Filtration Plant.

2017 by the Numbers

The City of Fridley's 2017 water by the numbers are as follows:

- 1.121 billion gallons of clean water sold
- 2017 residential usage = 60 gallons per capita per day (down 2% from 2016)

- Through the Clean Water Land and Legacy Amendment, Anoka Conservation District provided \$518,000 in funding for the Oak Glen Creek Pond Expansion Project, further protecting our water sources.
- Mississippi Watershed Management Organization also provided \$248,000 in funding for stormwater quality improvements as part of the Main Street Drainage Improvements Project.
- 18 watermain breaks repaired and 43 service leaks repaired.
- Total Hardness: 205-290 mg/l or 12-17 grains/gal. About half the homes in Fridley use a water softener.



The Value of Water

Throughout history, civilizations have risen and fallen based on access to a plentiful, safe water supply. That's still the case today. Water is key to healthy people and healthy communities. Water is also vital to our economy. Systems are in place to provide you with clean drinking water. The state of Minnesota and local water systems work to protect drinking water sources.

If we detect a problem, we take corrective action and notify the public.

Fridley Monitoring Results

We work with the Minnesota Department of Health to test drinking water for more than 100 contaminants. It is not unusual to detect contaminants in small amounts. No water supply is ever completely free of contaminants. Drinking water standards protect Minnesotans from substances that may be harmful to their health.

Learn more by visiting the Minnesota Department of Health's webpage Basics of Monitoring and Testing of Drinking Water in Minnesota (<http://www.health.state.mn.us/divs/eh/water/factsheet/com/sampling.html>).

We sample for some contaminants less than once a year because their levels in water are not expected to change from year to year. If we found any of these contaminants the last time we sampled for them, we included them in the tables below with the detection date.

We may have done additional monitoring for contaminants that are not included in the Safe Drinking Water Act. To request a copy of these results, call the Minnesota Department of Health at 651-201-4700 or 1-800-818-9318 between 8:00 a.m. and 4:30 p.m., Monday through Friday.

Supplemental Contaminant Monitoring

The City of Fridley performs supplemental monitoring of regulated and unregulated contaminants to ensure that your drinking water is clean and safe. No contaminants were detected at levels that violated federal drinking water standards or exceeded Minnesota Department of health risk guidelines.

Supplemental monitoring performed in 2017 included regular testing for contaminants that have impacted the city's wells recently and in the past. Monitoring for Trichloroethylene (TCE) indicated no detection in treated water, and one

detection in a single well below established standards and health risk guidelines. The City of Fridley also continues to monitor concentration of 1,4-Dioxane in multiple wells, and trace levels were found. These were over nine times below the strictest health standard. Most recently, one city well was impacted by Perfluorochemicals (PFCs), and was immediately taken out of service in late 2016. While levels were again substantially lower than the strictest health risk guidelines, the city has taken this added precautionary measure to protect public health.

The City of Fridley is continuing to work to identify and eliminate sources of these contaminants impacting specific well sources.

Definitions

AL—Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

EPA—Environmental Protection Agency

MCL—Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG—Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL—Maximum Residual Disinfectant Level: The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG—Maximum Residual Disinfectant Level Goal: The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

pCi/l—PicoCuries per liter (a measure of radioactivity).

ppb—Parts per billion, which can also be expressed as micrograms per liter ($\mu\text{g}/\text{l}$).

ppm—Parts per million, which can also be expressed as milligrams per liter (mg/l).

The water quality data table is on the following page.

2017 Water Quality Data

The table below shows the contaminants we found last year or the most recent time we sampled for that contaminant. It also shows the levels of those contaminants and the EPA's limits. Substances that we tested for but did not find are not included in the table.

DETECTED COMPOUNDS CONTAMINANT NAME	UNITS	EPA LIMITS		FRIDLEY LEVELS		VIOLATION	TYPICAL SOURCES
		GOAL (MCLG)	MAXIMUM (MCL)	RESULT*	RANGE		
Nitrate (as Nitrogen)	(ppm)	10	10	0.28	0 - 0.28	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Gross Alpha	(pCi/l)	0	15.4	6.4	N/A	No	Erosion of natural deposits.
Combined Radium	(pCi/l)	0	5.4	5	N/A	No	Erosion of natural deposits.
TTHM (Total trihalomethanes)	(ppb)	--	80	1	0.6 - 1.0	No	By-product of drinking water disinfection.
Haloacetic Acids (HAA5)	(ppb)	--	60	1	0-1	No	By-product of drinking water disinfection.
Fluoride	(ppm)	4	4	0.83	0.65-0.83	No	State of Minnesota requires all municipal water systems to add fluoride to the drinking water to promote strong teeth; Erosion of natural deposits; Discharge from fertilizer and aluminum factories.
TCE (Trichloroethylene) ^(a)	(ppb)	0	5 ^(b)	0	0 ^(c)	No	Discharge from metal degreasing sites and other factories.
1,4-Dioxane ^(a)	(ppb)	No EPA Limit Established ^(d)		--	0 - 0.11	No	Discharge from metal degreasing sites and other factories.
PFOA	(ppb)	No EPA Limit Established ^(e)		0	0 ^(f)	No	Manmade chemicals that have been used for decades to make products that resist heat, oil, stains, grease and water.
		GOAL (MRDLG)	MAXIMUM (MRDL)	HIGH AVG QUARTER	HIGH/LOW AVG MONTH		
Chlorine	(ppm)	4	4	1.24	1.10 - 1.35	No	Water additive used to control microbes.
		GOAL (MCLG)	MAXIMUM (AL)	90% LEVEL	SITES OVER AL		
Copper (2016)	(ppm)	0	1.3	0.73	0 out of 31	No	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (2016)	(ppb)	0	15	5.7	1 out of 31	No	Corrosion of household plumbing systems; Erosion of natural deposits.

* Results are values used to determine compliance with federal standards. They sometimes are the highest value detected and sometimes are an average of all the detected values. If an average is used, results may include sampling from the previous year.

^(a) Results from City of Fridley supplemental monitoring.

^(b) The Minnesota Department of Health has set a Health Risk Limit of 0.4 ppb for TCE. See www.health.state.mn.us/divs/eh/risk/guidance/gw/tceinfosheet.pdf for further information.

^(c) Note that one operational well sampled from 0 to 0.21 ppb (Well 9).

^(d) The Minnesota Department of Health has set a Health Risk Limit of 1 ppb for 1,4-Dioxane.

See www.health.state.mn.us/divs/eh/risk/guidance/dwec/dioxaneinfo.pdf for further information.

^(e) The Minnesota Department of Health has set a Health Based Value of 0.035 ppb. See <http://www.health.state.mn.us/divs/eh/risk/guidance/gw/pfosinfo.pdf> for further information.

^(f) Note that one **non-operational** well sampled from 0 to 0.014 ppb (Well 10).

Lead in Drinking Water

You may be in contact with lead through paint, water, dust, soil, food, hobbies, or your job. Coming in contact with lead can cause serious health problems for everyone. There is no safe level of lead. Babies, children under six years, and pregnant women are at the highest risk.

Lead is rarely in a drinking water source, but it can get in your drinking water as it passes through lead service lines and your household plumbing system. Fridley provides high quality drinking water, but it cannot control the plumbing materials used in private buildings.

Continue reading to learn how you can protect yourself from lead in drinking water.

1. **Let the water run for 30-60 seconds** before using it for drinking or cooking if the water has not been turned on in over six hours. If you have a lead service line, you may need to let the water run longer. A service line is the underground pipe that brings water from the main water pipe under the street to your home.
 - You can find out if you have a lead service line by contacting your public water system, or you can check by following the steps at: *Are your pipes made of lead? Here's a quick way to find out* (<https://www.mprnews.org/story/2016/06/24/npr-find-lead-pipes-in-your-home>).
 - The only way to know if lead has been reduced by letting it run is to check with a test. If letting the water run does not reduce lead, consider other options to reduce your exposure.
2. **Use cold water** for drinking, making food, and making baby formula. Hot water releases more lead from pipes than cold water.
3. **Test your water.** In most cases, letting the water run and using cold water for drinking and cooking should keep lead levels low in your drinking water. If you are still concerned about lead, arrange with a laboratory to test your tap water. Testing your water is important if young children or pregnant women drink your tap water.
 - Contact a Minnesota Department of Health accredited laboratory to get a sample container and instructions on how to submit a sample: Environmental Laboratory Accreditation Program (<https://apps.health.state.mn.us/eldo/public/accreditedlabs/labsearch.seam>)
The Minnesota Department of Health can help you understand your test results.

4. Treat your water if a test shows your water has high levels of lead after you let the water run.
 - Read about water treatment units: Point-of-Use Water Treatment Units for Lead Reduction (<http://www.health.state.mn.us/divs/eh/water/factsheet/com/poulead.html>)

Learn more:

- Visit Lead in Drinking Water (<http://www.health.state.mn.us/divs/eh/water/contaminants/lead.html#Protect>)
- Visit Basic Information about Lead in Drinking Water (<http://www.epa.gov/safewater/lead>)
- Call the EPA Safe Drinking Water Hotline at 1-800-426-4791. To learn about how to reduce your contact with lead from sources other than your drinking water, visit Lead Poisoning Prevention: Common Sources (<http://www.health.state.mn.us/divs/eh/lead/sources.html>).



Fluoride in Drinking Water

Fluoride is nature's cavity fighter, with small amounts present naturally in many drinking water sources. There is an overwhelming weight of credible, peer-reviewed, scientific evidence that fluoridation reduces tooth decay and cavities in children and adults, even when there is availability of fluoride from other sources, such as fluoride toothpaste and mouth rinses. Since studies show that optimal fluoride levels in drinking water benefit public health, municipal community water systems adjust the level of fluoride in the water to a concentration between 0.5 to 1.5 parts per million (ppm), with an optimal fluoridation goal between 0.7 and 1.2 ppm to protect your teeth. Fluoride levels below 2.0 ppm are not expected to increase the risk of a cosmetic condition known as enamel fluorosis.



Some People Are More Vulnerable To Contaminants in Drinking Water

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. The developing fetus and therefore pregnant women may also be more vulnerable to contaminants in drinking water. These people or their caregivers should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Home Water Treatment

Most Minnesotans, whether they drink from a public water supply or a private well, have drinking water that does not need treatment for health protection. Water treatment units are best for improving the physical qualities of water—the taste, color, or odor.

No single treatment process can remove all substances in water. If you decide to install a home water treatment unit, choose a unit certified and labeled to reduce or remove the substance of concern. If there is more than one substance you want to remove from your water, you may need to combine several treatment processes into one system.

Even well-designed treatments systems can fail. You should continue to test your drinking water after you install a treatment unit. All home water treatment units need regular maintenance to work correctly. Regular maintenance may include changing filters, disinfecting the unit, or cleaning scale buildup. Always install, clean, and maintain a treatment unit according to the manufacturer's recommendations.

Learn more at Home Water Treatment (<http://www.health.state.mn.us/divs/eh/water/factsheet/com/pou.html>).

Beware of Scams

False claims, deceptive sales pitches, or scare tactics have been used by some water treatment companies. Every person has a right to decide what is best for themselves and their family, and you may choose to install additional water treatment to further lower the levels of contaminants of emerging concern, chlorine, and other chemicals in your water. However, you should be cautious about purchasing a water treatment system. If you are considering the purchase of a home water treatment system, please

read the Minnesota Department of Health's recommendations online at Warning: Beware of Water Treatment Scams (<http://www.health.state.mn.us/divs/eh/water/factsheet/com/beware.html>).

Pros & Cons of Water Softening

Water softeners are a water treatment device. They remove water hardness (dissolved calcium and magnesium). The decision to soften your water is a personal choice that can affect your home and the environment. It is important to understand your home's water quality. This will help you decide if a home water softener is necessary and choose the best treatment device(s). Water softeners must be installed and maintained properly to be safe and effective.

The advantages of home water softening include:

- Prevents build-up of minerals (scale) on the inside of pipes, fixtures, and hot water heaters.
- Lengthens the life of some appliances.
- Reduces or prevents mineral spots on glassware.
- Prevents or reduces soap films and detergent curds in sinks, bathtubs, and washing machines.

The disadvantages of home water softening include:

- Can corrode your pipes. The corroded metal from the pipes can end up in your water.
- Potential health implications from additional sodium from water softening.
- Regular testing of the water and maintenance of the softener is necessary to make sure the softener is working properly.
- Salt use negatively impacts the environment.
- Water waste: The water used to regenerate the softener beads ends up as waste water.



Reduce Backflow at Cross Connections

Bacteria and chemicals can enter the drinking water supply from polluted water sources in a process called backflow. Backflow occurs at connection points between drinking water and non-drinking water supplies (cross connections) due to water pressure differences.



For example, if a person sprays an herbicide with a garden hose, the herbicide could enter the home's plumbing and then enter the drinking water supply. This could happen if the water pressure in the hose is greater than the water pressure in the home's pipes.

Property owners can help prevent backflow. Pay attention to cross connections, such as garden hoses.

The Minnesota Department of Health and American Water Works Association recommend the following:

- Do not submerge hoses in buckets, pools, tubs, or sinks.
- Keep the end of hoses clear of possible contaminants.
- Do not use spray attachments without a backflow prevention device. Attach these devices to threaded faucets. Such devices are inexpensive and available at hardware stores.
- Use a licensed plumber to install backflow prevention devices.
- Maintain air gaps between hose outlets and liquids. An air gap is a vertical space between the water outlet and the flood level of a fixture (e.g. the space between a wall-mounted faucet and the sink rim). It must be at least twice the diameter of the water supply outlet, and at least one inch.
- Commercial property owners should develop a plan for flushing or cleaning water systems to minimize the risk of drawing contaminants into uncontaminated areas.

Conservation

Conservation is essential, even in the land of 10,000 lakes. For example, in parts of the metropolitan area, groundwater is being used faster than it can be replaced. Some agricultural regions in Minnesota are vulnerable to drought, which can affect crop yields and municipal water supplies.

We must use our water wisely. Below are some tips to help you and your family conserve – and save money in the process.

- Fix running toilets—they can waste hundreds of gallons of water.
- Turn off the tap while shaving or brushing your teeth.
- Shower instead of bathe. Bathing uses more water than showering, on average.
- Only run full loads of laundry, and set the washing machine to the correct water level.
- Only run the dishwasher when it's full.
- Use water-efficient appliances (look for the WaterSense label).
- Use water-friendly landscaping, such as native plants.
- When you do water your yard, water slowly, deeply, and less frequently. Water early in the morning and close to the ground.

Learn more:

- Minnesota Pollution Control Agency's Conserving Water webpage (<https://www.pca.state.mn.us/living-green/conserving-water>)
- U.S. Environmental Protection Agency's WaterSense webpage: (<https://www.epa.gov/watersense>)



Drinking Water Sources

Minnesota's primary drinking water sources are groundwater and surface water. Groundwater is the water found in aquifers beneath the surface of the land. Groundwater supplies 75 percent of Minnesota's drinking water. Surface water is the water in lakes, rivers, and streams above the surface of the land. Surface water supplies 25 percent of Minnesota's drinking water.

Contaminants can get in drinking water sources from the natural environment and from people's daily activities. There are five main types of contaminants in drinking water sources.

- *Microbial contaminants*, such as viruses, bacteria, and parasites. Sources include sewage treatment plants, septic systems, agricultural livestock operations, pets, and wildlife.
- *Inorganic contaminants* include salts and metals from natural sources (e.g. rock and soil), oil and gas production, mining and farming operations, urban stormwater runoff, and wastewater discharges.
- *Pesticides and herbicides* are chemicals used to reduce or kill unwanted plants and pests. Sources include agriculture, urban stormwater runoff, and commercial and residential properties.
- *Organic chemical contaminants* include synthetic and volatile organic compounds. Sources include industrial processes and petroleum production, gas stations, urban stormwater runoff, and septic systems.
- *Radioactive contaminants* such as radium, thorium, and uranium isotopes come from natural sources (e.g. radon gas from soils and rock), mining operations, and oil and gas production.

The Minnesota Department of Health provides information about your drinking water sources in a source water assessment, including:

- How Fridley is protecting your drinking water sources;
- Nearby threats to your drinking water sources;
- How easily water and pollution can move from the surface of the land into drinking water sources, based on natural geology and the way wells are constructed.

Find your source water assessment at Source Water Assessments (www.health.state.mn.us/divs/eh/water/swp/swa/) or call 651-201-4700 or 1-800-818-9318 between 8:00 a.m. and 4:30 p.m., Monday through Friday.

YOU Can Prevent Pollution

Many of our daily activities contribute to the pollution of Minnesota's surface water and groundwater. You can help protect these drinking water sources by taking the following actions:

Lawn & Property

- Limit use of herbicides, pesticides, and fertilizers on your property.
- Keep soil in place with plants, grass, or rocks.
- Cover temporary piles of dirt with a tarp or burlap sack.
- Keep leaves and grass off of streets and sidewalks.
- Maintain any septic systems, private wells, and storage tanks to prevent leaks. Seal any unused wells.

Medications

- Never flush unwanted or out-of-date medications down the toilet or sink. Always take them to a waste disposal or prescription medication drop-off site. More information is available at Managing unwanted medications.

Hazardous Materials

- Safety store hazardous materials such as paint, batteries, herbicides, pesticides, and pool chemicals. Dispose of them at a proper waste disposal facility or drop-off event. Do not dump down storm drains, sink or onto your land. Learn more at: Keep hazardous waste out of the garbage (<http://www.pca.state.mn.us/featured/keep-hazardous-waste-out-garbage>).

Pet Waste

- Pick up after your pet and put waste in the trash.

Winter Ice Removal

- Winter ice removal: Chemicals used to break up the ice are called deicers or anti-icers. They can be harmful to the environment, corrosive to driveways and sidewalks and harmful to plants, pets and humans. Always shovel first, and then only apply deicers/anti-icers lightly if needed. Learn more at 10 smart salting tips to protect Minnesota waters (<https://www.pca.state.mn.us/featured/10-smart-salting-tips-protect-minnesota-waters>).

Please Be A Water Advocate

Spread the word! Get involved! There are many groups and individuals working to protect water across Minnesota.